

REMARKS

Claims 1-10 are pending in this application. No claims have been canceled or added.

Rejections under 35 USC 103(a)

The Examiner rejects claims 1-10 as obvious over Franchini in view of Martin. Applicants traverse the rejection and respectfully request the withdrawal thereof.

The present invention is directed to a method and device for obtaining, in a rapid and simple manner, a large number of measuring points suitable for measuring a dependent property of a liquid as a function of two independent variables, namely temperature and concentration. The instant invention is well suited for the production of three-dimensional diagrams, such as phase diagrams, by the application of computer technology.

Applicants submit the independent variables are predetermined and adjusted by program controls. The measurements of the dependent variable(s) are repeated for each predetermined measuring point of the independent variables and are performed in the same measuring cell. The temperature independent variable is determined by the computer's temperature control program or alternatively, by actual temperature measurements. The component concentration independent variable is determined by computer calculated data based on the changes in the concentration by the control program.

The large advantage with the present invention is that the dependent variable or variables can rapidly be measured as a function of the two independent variables, temperature and concentration, over a large temperature and concentration ranges in a large number of measuring points without the involvement of people. Hassle and human error in handling a large number of samples is completely avoided. In addition, all the measuring points and the values of the variables are obtained in electronic format and thus can easily be electronically stored in a computer and coordinated for displaying the results in three-dimensional diagrams.

Applicants submit that the Examiner has failed to make a prima facie case of obviousness. The Examiner has failed to point to specific teachings within the references, which motivate one of ordinary skill in the art to combine the cited references and arrive at the present invention.

Applicants submit the Franchini discloses an approach to the problem of the dependence of the dissociation constant of weak electrolytes. Thus, Franchini is not the least interested in the problem to be solved in the present invention. However, to the contrary, Franchini discloses an empirical approach to their problem. (See page 1697, last paragraph.)

Furthermore, at page 1698, second paragraph, it is evident that the apparatus used in the measurements had a completely

different construction in comparison with the present device defined in claim 6. For example, the temperature control was provided by a thermostatic bath and the solvent mixtures were prepared (see paragraph 3, page 1698) one by one. The number of mixtures produced was three. (See paragraph 4 on page 1698.) The conductance readings in the document were recorded when they became invariant with time, which took about 30 minutes. In an automatic device as described in the present invention, a normal interval between the readings is between 1-15 seconds. For a person skilled in the art it is obvious that the measurements disclosed by Franchini were not performed in accordance with the present invention, since neither the temperature nor the concentration is controlled and regulated in the manner defined in the claims of the present invention.

Although, Martin discloses performing a large number of measurements in order to create a three-dimensional diagram showing the dependency of physical and/or chemical properties on temperature and concentration over a large area, the objectives are inconsistent with the present invention. In Martin, the objective is to analyze and measure the contents of different metals in a given sample in **an intelligent sample handling system** for ICP analyses. Each sample is **manually placed** into the instrument where the sample is analyzed with respect to the metals present and their contents by plasma emission spectrometry. In order to compare the

content of a metal, the sample must be diluted with an operator-selectable fixed dilution to place all elements within the optimum calibration curve range. Using a sample changer, up to 76 samples could be placed in the instrument for analyzes.

Also, the Martin instrument seems to lack equipment for the automatic regulation and variation of the temperature. Whereas in the present invention, the temperature variable is controlled by the computer control program.

Applicants submit that clearly Martin discloses a completely different instrument in comparison with the device of the present invention. The instrument in Martin is an analysis instrument that does not and cannot measure a dependent variable as a function of concentration and temperature in the manner defined in the present claim 1.

Moreover, it is also evident from the references that there is no motivation for one of ordinary skill in the art combine the documents and arrive at the present invention.

Assuming for the sake of argument that the references are combinable, such a combination cannot result in a method or a device in accordance with the present invention, since for example the documents do not teach how the independent variables, temperature and concentration, in the present invention are to be regulated and interconnected.

For the foregoing reasons, Applicants submit that the present invention is patentable over the cited art. As such, Applicants respectfully request that the rejection be withdrawn and that the claims be allowed.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Kecia Reynolds (Reg. No. 47,021) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
Joseph A. Kolasch, #22,483

JAK/KJR/jao
2964-0102P

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000